

# New York State Cancer Control Program

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CANCER, one of the major disease problems of our day, is one of our chief public health problems. In recent years, its control has become a prime concern of the medical profession, the health agencies, and the public. Public interest and public demand for action have been motivated largely by fear and alarm over the increasing incidence of and the high mortality from cancer. Cancer control may be defined as an organized, planned endeavor to apply the principles of prevention, early diagnosis, prompt and adequate treatment, and care—including the provision of the best care and comfort to those in the advanced stages of cancer.

In carrying out the objectives of cancer control, the New York State Department of Health plans and works in cooperation with the district, city, and county health departments, the organized medical and dental professions, the New York State Division of the American Cancer Society, the State department of social welfare, medical schools in the State, nursing associations, various research centers, and the Public Health Service and its National Cancer Institute.

## The Program

In any one year, cancer afflicts well over a half million people in this country. On the basis of Levin and Goldstein's study of cancer incidence, mortality, and expectancy (1), we can predict that a 20-percent minimum of all

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persons in New York State will develop cancer during their lifetime.

All data reported herein for New York State, except where indicated, are exclusive of New York City. Likewise, the terms "upstate New York" and "upstate area" refer to New York State exclusive of New York City.

In 1951, 19,449 new cases of cancer were reported. At any one time in the upstate area, it is estimated that approximately 50,000 persons have cancer in various stages. The amount of work ahead is overwhelming and provides a scope of action for all professions and organizations.

New York State's interest in cancer control activities has a long history, beginning at the end of the 19th century. In 1898, Dr. Roswell Park, a Buffalo surgeon, persuaded the State legislature to grant \$10,000 for the institution of the State pathological laboratory in the University of Buffalo School of Medicine. Roswell Park Memorial Institute, the State cancer hospital in Buffalo, has developed from that source. A division of cancer control was established in 1931 at the institute with public education as its chief function. Upon recommendation of the New York State Legislative Cancer Survey Commission in 1939, cancer was made a reportable disease in the State, exclusive of New York City; the cancer control division was transferred to the State health department in Albany and its functions were broadened to permit the development of a more comprehensive program.

These beginnings and our progress since were made possible with the active support and influence of the medical profession and the citizens of the State. In more recent years,

this support and public action has produced a well-organized and active voluntary health agency: the New York State Division of the American Cancer Society.

The programs of the New York State Division of the American Cancer Society and of the State health department supplement and complement each other. On the State level, key personnel in cancer control serve on the board of directors and executive committee of the society. On the county level, local physicians, health officers, and the nurses take an active part in its program.

To point out the important contribution of the New York State Division of the American Cancer Society, one need only mention a few of the many projects for which funds have been allocated in the past year. Among these are financial support to tumor clinics and detection centers, payment for cytological and pathological services in some areas, intensive public educational programs, establishment of information centers or "Friendly Red Doors," nursing services, follow-up studies, professional fellowships, limited financial aid to needy cancer patients, and the development of a large and active volunteer group of workers.

The cancer control program of the department of health aims to assist all the people of the State in obtaining the best medical service for prevention, diagnosis, treatment, and care of cancer, and to advance knowledge with respect to its control. It covers eight basic fields: public education; professional education and training; cancer reporting; pathological diagnostic service; nursing services and training; promotion of tumor clinics; promotion of detection centers; and maintenance of a State cancer hospital.

### **Public Education**

The necessity is well established for constant education of the public regarding the importance of prompt medical care for various symptoms and of periodic physical examinations in the absence of symptoms. Public education is carried on by means of pamphlets, lectures, sound movies, radio and television programs, and exhibits. Most of the county medical societies have speakers' bureaus through which

trained medical speakers are available to public groups for cancer education talks. Participating physicians may be reimbursed \$10 apiece by the department's bureau of cancer control. The local branches and the "field armies" of the State division of the American Cancer Society have played an important part in stimulating community interest in the lectures.

In all, 727 public cancer education talks to 38,985 persons were reported in 1951 for the upstate area, representing an increase of 27 percent over the 531 talks reported for 1948. Unquestionably, others were not reported. Our figures show that over half the talks were given by local physicians in their respective areas, indicating the extent of physician participation at the local level.

### **Professional Education and Training**

Professional education must be a major activity of any cancer control program, for the physician is the one individual upon whose shoulders rests perhaps the greatest responsibility. Frequently, life and death depend on his efforts to recognize precancerous lesions, to diagnose cancer early, to render adequate treatment, and to secure competent consultation. A description follows of the many types of professional education employed throughout the State.

*Medical Society Meetings.* Many medical societies periodically have speakers on cancer at their regularly scheduled meetings. If desired, an honorarium of \$25 can be obtained for the speaker through the bureau of cancer control of the State health department.

*Cancer Teaching Days.* An effective means of professional education for both medical and dental groups is the cancer teaching day. A program of afternoon and evening lectures and demonstrations by invited authorities is offered on various aspects of cancer diagnosis, treatment, or research. Physicians from surrounding counties are invited to attend. The cancer teaching days are sponsored by the New York State Medical Society, the county medical societies, and the State and local health departments. The State health department pays an honorarium of \$50 to each speaker.

*Literature.* One aspect of professional education has been an attempt to prepare and distribute cancer literature of interest to the professional person. During the last 2 years, the department has distributed:

"Cancer Nursing Manual"—to each public health nurse in the State.

"Program Plan—Cancer Control"—to all physicians in the State, exclusive of New York City.

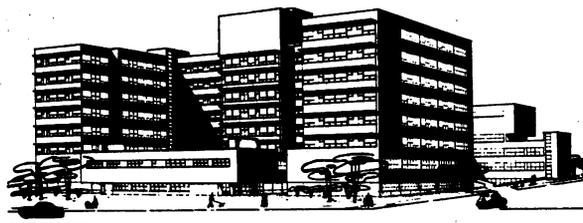
"Occupational Cancer Manual"—to each physician in the State.

"Cancer Control in Public Health"—to all local health officers in the State with the exception of New York City and to members of the Public Health Cancer Association of America.

*Tumor Clinic Conferences.* In accordance with the recommendations of the American College of Surgeons, local hospitals are urged to use their tumor clinics for professional education. The bureau of cancer control has encouraged tumor clinic staffs to bring in consultants from other areas and medical centers wherever possible to hold clinical sessions and physicians' conferences. For this type of service, the bureau reimburses qualified consultants at a rate of \$50 a day.

*Teaching of Tumor Pathology.* A joint project of the State health department and the Memorial Hospital in New York City, the program of teaching tumor pathology was begun in 1948 and continued with a special grant from the National Cancer Institute of the Public Health Service. Teaching material consists of slides and complete clinical histories of selected cancer cases prepared at Memorial Hospital and then distributed by the department's division of laboratories and research to pathologists in charge of the 144 approved laboratories in the State (2).

*Fellowship Program.* Fellowships are available to aid physicians in obtaining postgraduate experience or training in fields relating to cancer control. The candidate physician usually applies directly to the source from which he intends to obtain his training, whether it be a hospital, a clinic, or an independent medical specialist. Upon acceptance, he applies to the department for a fellowship to help in payment of tuition, and to include a monthly stipend of \$300 and traveling expenses. Any physician residing in the State is eligible, provided the training will benefit the cancer con-



ROSWELL PARK MEMORIAL INSTITUTE BUFFALO N. Y.

**Architect's drawing of addition to Roswell Park Memorial Institute, Buffalo—the New York State cancer hospital.**

rol program. Usually, applicants are physicians associated with tumor clinics or detection centers, or are pathologists wishing additional training in cytology. Fellowships may be granted for a week to a year and have included training in surgery, medicine, pathology, radiology, otolaryngology, and gynecology. From the beginning of the program in May 1947 until July 1, 1952, 84 New York State physicians have received a total of 262¼ months' training.

*Postgraduate Courses.* Several different types of courses have been organized during the last few years at different centers.

In 1949 and again in 1951, a 2-day postgraduate course on malignant diseases was held for the general practitioner in Buffalo. This was possible through the cooperation of the University of Buffalo Medical School, the Erie County Medical Society, and the Erie County and State health departments. Tuition of \$20 per physician was paid by the State health department. It is hoped to continue the course on a yearly basis and to start similar courses in other medical centers.

A 2-week course in cancer diagnosis and treatment was given in 1952 by the Columbia University faculty of medicine at the Francis Delafield Hospital in New York City, and sponsored by the university, the New York City and State departments of health, and the State medical society. Tuition fellowships amounting to \$90 for each physician were granted through the bureau of cancer control of the State health department.

A 1-week intensive course in the newer aspects of diagnosis and treatment has been started for interested full-time health officers of the State at Roswell Park Memorial Institute. A clinical

refresher course, it is designed to show the work being carried out at the State cancer hospital. It is held from time to time and is usually limited to five physicians.

During the last few years, the Academy of General Practice organized meetings for its members devoted to the subject of cancer. These have been both on the State and county level. This trend is one which the bureau of cancer control encourages whenever possible. The bureau also assists with reimbursing the speakers.

Table 1 shows the distribution of professional cancer education meetings in 1951.

### Cancer Reporting

Cancer reporting became mandatory in upstate New York by legislative action on January 1, 1940. In 12 years of reporting, the interest and cooperation of the physicians, of the laboratories, and of the hospitals throughout the State have been excellent. The completeness of cancer reporting compares favorably with that of other reportable diseases in the State. Each year physicians, laboratories, and hospitals report over 19,000 new cancer cases of State residents.

It is realized that collecting morbidity reports should not be an end in itself but that its value should be determined by the use of the reports. On the basis of the reports, a central cancer register has been set up in Albany.

**Table 1. Professional cancer education by type of audience—New York State, exclusive of New York City, 1951**

Type of audience	Number of meetings	Number of talks	Audience
Postgraduate course (physicians).....	3	37	80
Medical societies.....	11	13	536
Other physician groups.....	27	33	1,410
Hospital staff (physicians).....	17	14	580
Medical students.....	4	4	185
Dentists, dental assistants, hygienists.....	8	8	335
Nurses, student nurses.....	76	73	2,151
Pharmacists.....	2	2	296
Other professional groups.....	3	5	115
Total.....	151	189	5,688

Likewise, cancer rosters are maintained in the local city, county, and district health offices. They have proved valuable aids for follow-up, public health nursing services to cancer patients, and educational activities. The reports also form the groundwork for statistical information appearing in the annual report of the bureau of cancer control, and they make possible annual summaries of the cancer cases for each full-time health officer for his particular area. A summary includes number of cases by age, sex distribution, and most common sites. The summary for total cancer cases reported in upstate New York is also sent to the health officer for comparative purposes. In addition, more detailed statistical studies in cancer incidence, mortality, and survivorship are made.

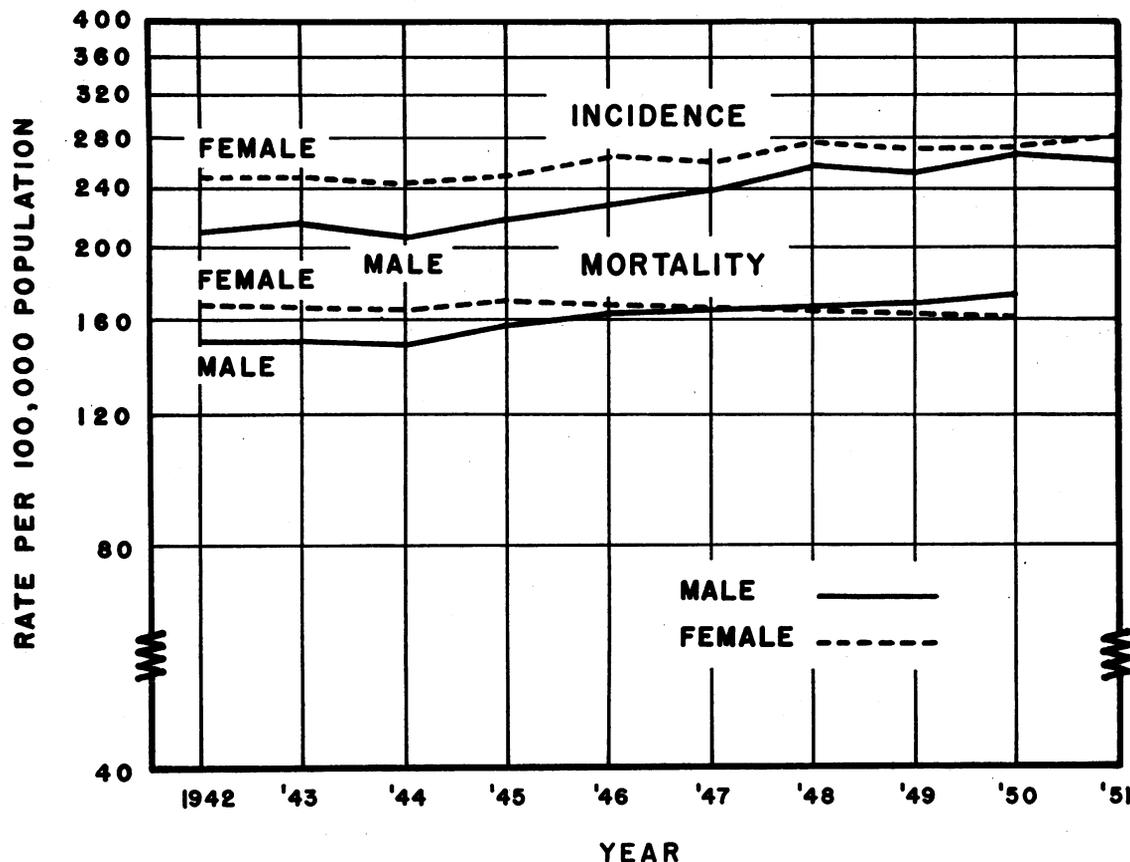
The trend of incidence and mortality rates from cancer for the last 10 years (fig. 1) shows that incidence of cancer in both sexes is increasing at a more rapid rate than mortality. In fact, the mortality rate for females has gradually declined since 1945. It is noteworthy that while the crude incidence rate for females continues at a level higher than that for males, the crude mortality rate is lower for females since 1948.

Incidence rates according to site are compared in figure 2 for the years 1942-44 and 1949-51. Cancers of the skin and lung-bronchus have shown the most marked increase, and cancer of the stomach a decrease. There has been a marked rise in incidence rates for all sites, from 237.0 new cases per 100,000 population during 1942-44 to 265.3 for the 1949-51 period.

### Pathological Diagnostic Service

A pathological diagnostic service is available to any physician requesting it and is of great importance in facilitating early diagnosis and treatment. Tissue diagnosis may be obtained by sending a specimen to the department's division of laboratories and research in Albany or to its branch laboratory in New York City. In addition, such service may be obtained locally at most approved laboratories. Of the 12,050 laboratory specimens examined in 1951 by the laboratories and research division, 1,402 (11.6 percent) were found to be malignant.

Figure 1. Reported crude rates of cancer incidence and mortality in New York State exclusive of New York City for 1942-51. Age-adjusting data and 1951 mortality rates are not available.



One hundred of the laboratories in New York State approved for pathology by the commissioner of health also do cytological examinations. They are scattered throughout the State and serve practicing physicians.

#### Nursing Services and Training

The need for efficient follow-up of cancer patients, both to evaluate the results of therapy and to maintain contact between physician and patient, is generally recognized. There also exists a widespread need for home-nursing care of patients which is met in many areas by public health nurses. To help provide adequate nursing service to the cancer patient, 2-week courses of intensive didactic and practical training have been under way since 1946 at Roswell Park Memorial Institute. They are offered at least twice a year to all supervisory public health nurses from official and voluntary agencies in

the State as well as to some staff nurses. Nurses in key positions, such as supervisors at cancer clinics, clinical instructors, university educators, and a limited number of consultant nurses from other States have also attended. From 1946 to July 1952, 239 nurses have taken these courses. The University of Buffalo School of Nursing offers similar courses for college credit to their graduate nursing students with instruction by the staff of Roswell Park Memorial Institute. As of July 1952, 54 nurses from the university school of nursing had attended the courses at the institute.

Arrangements can also be made through the State health department for a 4-6 weeks' course in cancer nursing at Memorial Hospital in New York City with college credit from New York University. From March 1949 to July 1952, 30 nurses working upstate have taken this course.

The increasing interest in cancer nursing

services and staff educational programs exhibited by most local health units is attributed to the realization of the local full-time health officer that knowledge and techniques in cancer control keep changing, as in any other field. The nurse must be kept up to date to benefit from her knowledge and practice. To achieve this, there must be continuous in-service training. The two cancer consultant nurses of the bureau of cancer control work closely with the supervising nurses of the local health departments in planning and participating in the in-service training programs. The programs are designed specifically for the staff nurse in the field. The method of in-service training varies from area to area, from 1-day meetings to meetings of several days spread over several months. The training usually consists of lectures, seminars, and group discussions of such topics as etiology, prevention, pathology, and therapy. The content of each program is adapted to the cancer problem within the particular locality and to the interests and needs of the nurses.

#### **Promotion of Tumor Clinics**

Tumor clinics and tumor diagnostic clinics have become an essential part of the cancer diagnostic and treatment program. Since late in 1939, when the expanded cancer program of the State health department was launched, the number of clinics in upstate New York increased from 23 to 57, as of July 1, 1952. Twenty-eight receive financial assistance in the form of reimbursement for the services of examining physicians, of a consultant, and for part-time clerical and nursing services. In considering the population distribution in upstate New York, as based on the 1950 census, it was found that only 19.6 percent of the people live more than 25 miles from either a tumor clinic or a tumor diagnostic clinic. One can say, therefore, that 80 percent of the people live within 25 miles of a clinic where they may receive expert advice and treatment.

Since tumor clinics are usually organized by the individual hospital medical groups, their staffing and operation is entirely a local staff matter. The bureau of cancer control is available to help or guide in organization or opera-

tion. The tumor clinic program has the full endorsement and cooperation of the State medical society and the Tumor Clinic Association of the State of New York. Periodically, a representative of the American College of Surgeons visits and inspects the individual clinics.

Aside from the patient aspect of the tumor clinic, one should not overlook the splendid opportunity in the tumor clinic for professional education. With this in mind, whenever promoting the formation of tumor clinics, personnel of the cancer control bureau emphasize the importance of using the clinic for tumor clinic conferences, with house and staff physicians participating, and possibly, a consultant brought in from another area to conduct the conference. The general practitioner is invited and encouraged to attend.

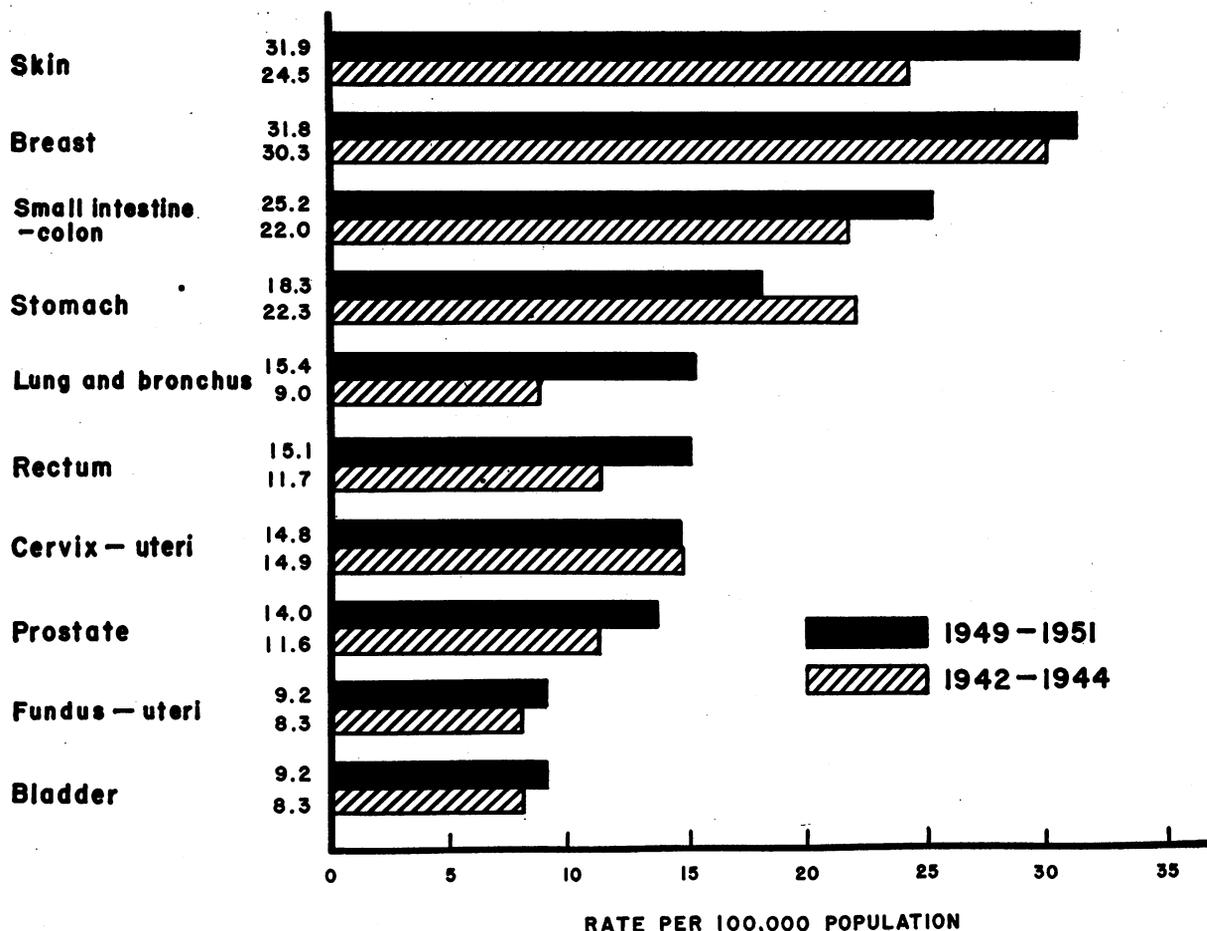
#### **Promotion of Detection Centers**

Detection centers are a relatively new procedure in cancer control, having developed within the past decade. Efforts to encourage periodic health examinations have not been too successful, but it is encouraging to note that the public is aware of the value of the detection center type of examination. To be most effective in aiding control of cancer, the examination should be repeated every 6 months. Waiting lists should not be extended beyond 4 to 6 weeks, since delaying appointments longer would defeat the purpose of the examination. It is also important to avoid giving the patient a false sense of security once he has been examined. A person going through a center who is not warned may neglect the early symptoms requiring medical attention which might develop before his next examination.

There were 6 detection centers upstate in 1947. By July 1, 1952, 18 were open. Of these, 17 receive some financial aid from the bureau by way of reimbursement for services of physicians, nurses, and clerical staff. In 1951, 5,254 individuals were examined in detection centers, and positive findings of some form of abnormality were found in 74 percent. Of the pathological conditions found, 24 percent were precancerous and 0.7 percent, malignancies (3).

The cancer detection center program has had

**Figure 2. Comparison of the major cancer sites for new cases reported for 1942-44 and 1949-51 in New York State exclusive of New York City. The annual average rates are per 100,000 population.**



the approval and cooperation of the State medical society. A few counties have shown an interest in organizing programs for cancer detection in the individual physician's office, but it is too early to evaluate the extent to which they answer the needs of the people.

#### **Roswell Park Memorial Institute**

Roswell Park Memorial Institute in Buffalo is a 110-bed cancer hospital operated by the department, and is an essential part of the cancer control program. An \$8 million building program at the institute will bring its bed capacity to 516 beds in 1954 and will expand and improve its research facilities.

The institute has a five-point cancer program of prevention, diagnosis, treatment, research, and education. Patients may be referred for

aid in diagnosis and for consultation and special treatment. In 1951, 2,454 new patients were admitted upon referral from the family physician; in addition, there were 29,187 revisits by former patients (4). Approximately 43 percent of the new patients referred were diagnosed as having malignant conditions.

The educational program at the institute includes instruction of medical, dental, and pharmacy students from Buffalo University, post-graduate instruction in cancer to resident physicians and interested practicing physicians, and training courses for public health supervising nurses. Research is conducted in physics, biophysics, nuclear physics, biology, and genetics.

The institute provides valuable consultation services not only to the practicing physician but to the tumor clinics, aiding them in solving

difficult diagnosis and therapy problems. Since all patients are referred by the practicing physician, Roswell Park Memorial Institute has greatly helped him carry out his responsibility of early diagnosis and adequate treatment for the cancer patient.

### Summary

The program of the New York State Department of Health in the eight major fields of cancer control activities was discussed. These are: public education, professional education and training, cancer reporting, pathological diagnostic service, nursing services and training, tumor clinics, detection centers, and maintenance of a State cancer hospital. All of these activities properly integrated are essential for the cancer control program in New York State. These eight basic fields can be used as a framework in setting up a program in other areas,

with modifications to suit the needs and conditions of the individual area. Although the primary responsibility of the cancer patient rests with the individual physician, the responsibility for a comprehensive cancer program rests with the medical profession, the health department, and the cancer society.

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- (1) Levin, M. L., and Goldstein, H.: Cancer incidence, mortality, and expectancy in upstate New York. Paper given at 4th International Research Congress, St. Louis, Mo., September 2-7, 1947.
- (2) Proceedings, 6th annual meeting, Public Health Cancer Association of America. New York City, October 24, 1949.
- (3) New York State Department of Health, Bureau of Cancer Control: Annual report 1951. Albany, 1952.
- (4) Forty-first annual report (1951) of the Board of Visitors and the Director of the Roswell Park Memorial Institute. Buffalo, N. Y., 1952.

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## State Crippled Children's Programs

Congenital physical defects afflicted one in every five children who received services under State programs for crippled children in 1950, according to a statement issued in September by the Children's Bureau of the Social Security Administration, Federal Security Agency. Reports of State agencies administering such programs showed that 44,000 of the 214,000 crippled children served by the programs during the year were born with some physical defect. The total number of children born with physical defects is unknown, the Children's Bureau stated.

The States vary in the scope of conditions for which they furnish program care. Every State includes all children with handicaps requiring orthopedic or plastic treatment (harelips, cleft palates, clubfeet, deformed bones, serious burns, bone and joint tuberculosis, and poliomyelitis). Nearly all assist children with cerebral palsy and arthritis; more than half the States include children with rheumatic fever and cardiac conditions; and some provide attention for children with epilepsy, congenital syphilis, and sight and hearing handicaps.

Recent advances in cardiac surgery have brought an increasing interest in treatment of children with congenital heart defects, the Children's Bureau said. Because the necessary skills and equipment for such treatment are not available uniformly throughout the country, the Children's Bureau has established a special fund to develop regional heart centers where children can go for treatment if it is not available locally.